

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

GENITAL AND ANAL PRURITUS

ETIOLOGY OF PRURITUS ANI

H. J. TEMPLETON, M. D. (3115 Webster Street, Oakland).—Pruritus ani may be caused by etiologic agents as obvious and as near to the anal canal as simple fissures, or as complex and remote as some neurosis or psychic fixation in the central nervous system. The difficulty of discovering the etiology may vary from the ease of recognition of pinworms to the complexities of a complete medical study in some of the more obscure cases.

Local causes are the easiest to discover, and obviously the first to approach. When the skin around the anus is pearly gray and sodden, suspect epidermophytosis. This diagnosis may be strengthened by finding a concurrent epidermophytosis of the toes and can be clinched by finding the fungi in scrapings. An irritating leukorrhea may be the cause of the pruritus; or, likewise, a diabetic urine. Fissures and external hemorrhoids are obviously possible trouble makers. Sometimes local infection, with such streptococci as the *S. fecalis* or other pathogens, may be causative; but it is difficult to prove this. Cultures, intradermal tests and appropriate vaccine therapy would seem to be in order in obstinate cases. A well-taken history will often disclose that the patient is applying some substance which is acting as an external irritant. In this respect one should think of anusol or other hemorrhoidal suppositories, butesyn picrate and other ointments, particularly those containing resorcin. I am aware of at least one patient who is extremely sensitive to toilet paper, and, in general, I feel that the use of toilet paper should be prohibited temporarily, substituting damp cotton therefor. The seepage from mineral oil may produce anal irritation.

Intrarectal pathology may produce pruritus ani. Therefore, proctoscopic examinations and the help of a proctologist are advisable. Internal hemorrhoids, cryptitis, stricture, are representative of this group. Gastro-intestinal infections, such as amebiasis, colitis, and diarrheas, as well as infestation with the various intestinal worms, must be considered.

Noxious stimuli over afferent nerves from pelvic or abdominal pathology may be reflexly referred out over efferent fibers to the perineum, and be interpreted as a pruritus ani. Thus pregnancy, appendicitis, salpingitis and prostatitis may produce the pruritus. Illustrative of this point, but certainly a medical curiosity, is Maynard's case of pruritus ani, apparently caused by a huge umbilical calculus and cured by removal of it.

Certain dermatoses may localize around the anus and produce pruritus. This occurs fairly commonly in seborrheic dermatitis. Inspect the

scalp, pubic area, and axillae. Eczema may localize around the anus as a part of eczema elsewhere on the body.

There are many systemic disorders which can produce itching of the anus. Possibly foremost among these stands diabetes. Other less common causes are icterus, leukemia, cardiovascular and renal breakdown. Allergy is responsible for some of these cases. I can recall one patient whose pruritus was cured by a milk-free diet. Or, as mentioned above, the pruritus ani may be due to a localized patch of a widespread allergic eczema.

Of the less tangible causes, one should mention the neuroses and psychic fixations. Stokes has emphasized this phase of the etiology. I have seen several such. One patient developed a pruritus vulvae et ani because of fear of intercourse with her husband, who had tuberculosis of the epididymus. A male patient of an age when his sexual powers normally were waning developed a pruritus ani as a defense reaction against his wife's Messalina-like demands. Such cases demand study by a neurologist.

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DIAGNOSIS AND PROGNOSIS

H. P. JACOBSON, M. D. (2007 Wilshire Boulevard, Los Angeles).—Diagnosis and prognosis of pruritus vulvae et ani depend upon discovery of the underlying causative mechanism, and upon the character of the etiologic agent in a given case. The sensation of pruritus, it will be recalled, may either be a local symptomatic expression of a disease process situated near to or distantly removed from the pruritic area, or the symptom-complex may constitute a disease entity *sui generis*, without any observable organic tissue changes *in situ* or in any other organ of the body to account for the trouble. For clinical diagnostic purposes, the disorder lends itself to study under the following classification:

1. Pruritus vulvae et ani due to local causes;
2. Pruritus vulvae et ani due to systemic or visceral diseases;
3. Essential pruritus vulvae et ani of unascertainable etiology.

1. *Pruritus Due to Local Causes*.—This form of the disorder may be encountered in both sexes at any age, though the anal form is observed most frequently in the adult male. Its inception may have its origin in irritating discharges from the bowel, rectum, or genito-urinary tract; in the local employment of antiseptic or contraceptive chemicals; in the mechanical or toxic action of protozoal organisms (*Oxyuris vermicularis*, *pediculi*, *amebae*, and *trichomonas vaginalis*); in bacterial infections (*coli*, *streptococci*, and *gonococci*); and

in fungal infections (yeast-like fungi, epidermophyta, and trichophyta).

The mechanism by which these different agents give rise to the annoying symptom of pruritus differs considerably. In cases of irritating discharges (regardless of whether these originate in cervical, vaginal, urinary, or anorectal-intestinal diseases, including hemorrhoids, anal fissures, etc.), the mechanism is probably that of a direct abrasive action upon the epidermal covering primarily, followed secondarily by an excitant effect upon the tactile sensory nerve organs of the involved parts, resulting in the sensation of pruritus.

In the parasitic form of the disorder, the mechanism concerned is largely determined by the character of the causative organisms. The oxyuria vermicularis, for instance, give rise to the sensation of itching or crawling by their very presence and locomotion across the mucocutaneous surface, thereby exciting (mechanically) the tactile sensory nerve organs of the parts. On the other hand, pruritus of bacterial or mycotic origin usually involves a mechanism more complicated, though benign, in character. The process here is essentially one of tissue defense, and consists, in addition to edema, of a mobilization of cellular elements in response to invading microorganisms, their toxins and metabolic products, and a direct excitant action of all these upon the sensory and tactile nerve organs of the parts, expressing themselves clinically in the sensation of pruritus.

2. *Pruritus Due to Systemic or Visceral Disease*.—Under this caption may be included those cases of pruritus vulvae et ani which may be traced to functional or organic tissue changes in some organ or viscus not directly connected with the pruritic area. Lack of space will not permit thorough consideration of this phase of the problem, but for purposes of illustration the following may be listed as frequent sources of origin:

(a) Foci of infection, no matter where located, but especially those situated in the urogenital organs, may reflexly or through direct toxic action excite the tactile sensory nerve organs of the anogenital tracts, and give rise to the sensation of itching.

(b) Portal congestion due to hepatic disease, or to local obstruction from tumors in the abdominal cavity, or from uterine pressure in the late stages of pregnancy, may reflexly, or through direct toxic action upon the tactile sensory nerve organs, give rise to pruritus.

(c) Intra-abdominal neoplasms, Hodgkin's disease, and the leukemias, possibly through a selective toxic action upon the tactile and sensory nerve organs, not infrequently give rise to anogenital pruritus.

(d) Intestinal stasis, nephritis, and especially diabetes, through toxic action of the respective metabolic products upon the tactile sensory nerve filaments of the anal and genital systems, not uncommonly express themselves clinically in the symptom of pruritus.

3. *Pruritus Ani et Vulvae Due to Undiscoverable Causes—Essential Pruritus*.—In this category belong the cases of so-called essential pruritus in

which no causative mechanism is discoverable upon examination. It is probably a disease entity *sui generis*, and from the therapeutic and prognostic standpoints constitutes a most troublesome problem. The genital form is met with most frequently in the female sex during the climacterium, though it may be observed in both sexes at any period of adult life. The disorder is primarily a localized neurosis of the anal-genital tracts, usually without any observable organic mucocutaneous changes, except such as may be produced by the patient's scratching in an endeavor to obtain relief from itching.

Regardless of what group or category a given case of pruritus ani or vulvae may belong to, the essential and frequently only symptom for which medical relief is sought is pruritus. It is a most distressing sensation, and the victims will usually gladly submit to any form of painful therapy in order to be relieved of the agonizing itching, crawling, or pricking sensation. The itching may be persistent or paroxysmal in character, but is especially annoying after sunset, and particularly after retiring to a comfortable, warm bed. The desire to scratch constantly is so irresistibly agonizing that these patients not uncommonly are obliged to shun society and to become burdens to themselves and to their surrounding associates, friends, and families.

From what has been said, it is obvious that from the diagnostic standpoint the symptom of pruritus *per se* is of no more significance than is that of headache, backache, or any other similar complaint. Like headache or backache, it may be a clinical expression of any one of a number of disease entities, requiring diligent search and study for a correct diagnosis.

The examination of the patient should begin with the taking of a careful and pertinent history, in an endeavor to obtain a clue or clues which may enable the examiner to classify a particular case under the proper category. Such items as personal habits, diet, past illnesses, and the use of drugs (especially local antiseptics and contraceptives) should be gone into thoroughly, and the question of food sensitization should be accorded adequate consideration. This should be followed by a general inspection of the entire body, with a view of eliminating such humble offenders as *Acarus scabiei* and *Pediculus pubis* as possible etiologic agents, and/or such other cutaneous conditions as may serve to throw light upon the existing pruritus.

The various systems and organs should receive such attention as the indications in a given case may require, and the laboratory procedures should be of such a character as to meet the indications in a given situation.

Dermatologic Earmarks.—From the dermatological standpoint, each type of pruritus vulvae et ani frequently presents some fairly characteristic objective features, susceptible, in a majority of instances, of correct interpretation by an experienced dermatological observer. Lack of space will only permit a general schematic outline of such suggestive features, and these may be submitted

(in accordance with classification previously outlined) as follows:

Group 1 (pruritus due to local causes). The common outstanding dermatological characteristics frequently separating this from the other two groups are: (a) sharp definition of the cutaneous eruption; (b) absence of infiltration; (c) mucocutaneous eruption preceding pruritus (excepting cases due to oxyuris vermicularis, and, occasionally, to contraceptive and antiseptic chemicals).

The cutaneous eruptions in pruritus cases due to bacterial infections (*Streptococcus fecalis*, *Bacillus coli*, or gonocci) are actually characterized by a good deal of inflammatory tissue reaction, frequently associated with vesiculation and oozing. Dermatitis produced by irritating discharges (from rectum or urogenital systems) is not uncommonly associated with a good deal of epidermal abrasion, and is subject to exacerbations and remissions, according to the amount and character of the discharge.

Pruritic dermatoses caused by members of the different genera of fungi (except in the presence of secondary bacterial infections) usually consist of sharply defined, noninfiltrated, only very slightly elevated, erythematous, scaly, dry patches, presenting little or no inflammatory reaction. Members of the monilia genus and some members of the trichophyton genus may, however, produce vesicular lesions, arranged discretely or coalescing to form sharply margined patches. The vesicular lesions caused by these fungi are situated more deeply in the skin than are those produced by the bacteria and are, therefore, more tense and less subject to spontaneous rupture than are the vesicular elements caused by the latter organisms.

Group 2. In this, the so-called systemic type of pruritus vulvae et ani, the symptom of itching usually precedes the cutaneous eruption, though occasionally the reverse may be true. The eruption is commonly of the eczematous type, and consists of erythema, vesicles, and papules all combined in a given patch; or the latter may consist of any one or two of the three primary elements. Regardless, however, of the composition of a given patch, its outline is usually poorly defined, its surface may be moist and oozing or relatively dry, but infiltration sooner or later becomes a prominent feature.

Group 3. In this category belong the cases of so-called essential pruritus vulvae et ani. The disorder here is primarily and solely a pruritus without any observable organic mucocutaneous changes, and presenting no visible dermatological evidence of cutaneous disease. Such visible mucocutaneous pathology as may finally become manifest is usually secondary in character, a result of persistent mechanical insult inflicted by the patient (rubbing and scratching) in an endeavor to obtain relief from itching.

Prognosis.—Regarding the prognosis of pruritus vulvae et ani, little need be said in addition to what has been stated previously. The outcome of any case of pruritus depends upon the character of the etiological mechanism at work, and upon

the ability of the attending physician to discover the cause and to employ proper therapeutic measures. Pruritus due to local causes lends itself to therapeutic management with a good deal of facility, and the prognosis is, accordingly, good in the majority of cases.

The prognosis of pruritus vulvae et ani secondary to systemic disease (second group) naturally depends upon the character of the underlying disorder responsible for the itching. In a general way it may be said that in the majority of cases (except those due to malignant neoplasms or organic spinal diseases) the prognosis is good, if the cause is discovered and removed or treated properly.

The prognosis of anal-genital pruritus of the third group—essential pruritus—is somewhat uncertain. By the older methods of treatment in vogue, the prognosis may be said to be essentially unfavorable in the majority of cases. The therapeutic results achieved are, at best, only temporary in character, and the pruritic parts, in a good many instances, following a series of relapses of itching in spite of treatment, sooner or later become infiltrated, leukoplakial, and, finally, epitheliomatous. With the presently available, newer methods of treatment by means of alcoholic and anesthetic injections, however, this aspect of the problem is assuming a different complexion, and a better prognosis is in the offing. Dr. Norman J. Kilbourne treated a good many cases of this form of pruritus vulvae et ani by means of injections, and is very enthusiastic over the therapeutic results he has been able to achieve. My own personal experience with this form of treatment is limited in character, but the results have been so favorable that I feel the method deserves wider clinical application with prospects of enhancing the prognosis in this form of the disorder immensely.

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TREATMENT OF PRURITUS OF THE ANUS • AND GENITALIA

HARRY E. ALDERSON, M.D. (Stanford University Medical School, San Francisco).—An occasional annoying symptom to some, a persistent, very distressing one with agonizing periods of acute exacerbation to others, pruritus of the anus or genitalia is a subject of wide interest calling for discussion in these columns from time to time. In this JOURNAL (January, 1927) was published an article by the author of this one, stressing the fact that this form of localized pruritus is largely a symptomatic condition due to causes acting "reflexly" and complicated by local conditions. My views regarding etiology have not changed, but I have some useful suggestions to present regarding treatment.

It goes without saying that one should not attempt to treat these cases without giving careful consideration to the patient's general condition. Failure to take into account the possibility of the existence of high-blood sugar, hypothyroidism, or hyperthyroidism, will explain some therapeutic disappointments. These conditions not only will produce increased vulnerability of the skin and

susceptibility to secondary infections, but such skins will lack the normal tendency to recover quickly from an injury. It is useful, too, to remember that occasionally pruritus ani will herald the onset of *tabes dorsalis*. In many cases indiscretions in diet, as well as food idiosyncrasies, will have to be attended to. Alcoholism, excessive use of tobacco, or drug addiction, when existent must be taken care of. Likewise when intestinal parasites are present they must be eliminated. I have known cases of anal pruritus where relief was not obtained until the patients stopped taking mineral oil. So a vitally important part of the treatment is found to be constitutional, and the gastro-intestinal tract should be the object of very careful consideration.

Pruritus of the anus and genitalia often exist together, and as the symptom frequently is produced "reflexly" by disturbances in some pelvic structure, the treatment is obvious. Local skin and mucous membrane changes, associated with the menopause or senility, produce some of our cases. Here endocrinotherapy may help, but one must rely mainly upon certain local measures, to be discussed presently. Quite often the removal of hemorrhoids, the eradication of rectal growths, fissures of ulcers, will relieve pruritus ani. The successful treatment of vaginal or uterine disease often will be followed by subsidence of pruritus vulvae.

If the patient has a seborrheal skin, the itching may be more severe, and eczema, and at times pyogenic infections, may result, greatly complicating the situation. Such cases may be much helped by cleansing drying lotions, roentgen therapy, and ultra-violet treatments, which will be discussed later.

One often hears of cases which are assumed to be due to the presence of a local mycotic infection. It is easy to demonstrate the presence of fungi and other organisms in scrapings from the anal and genital regions of most any individual. Even where there is obvious local inflammation from this cause, I believe that there usually are more important underlying etiologic factors, as already suggested. Naturally, one's treatment should include measures to combat local infections. I do not agree with those who claim that most cases are due entirely to local mycotic infections.

Many cases are complicated by overtreatment. Often the skin and mucosa are so damaged, and all one can do for a few days is to apply most soothing preparations until healing takes place. A weak cocain ointment or liquor alumini subacetatis compresses (containing Burrow's solution, diluted sixteen times) will be very useful here. This preliminary treatment is also very beneficial when there is edema and inflammation due to scratching. Tiny abrasions are very apt to be the starting points of widely spread itching. Applications to these abrasions of a five or ten per cent silver nitrate solution are indicated. When the results of excessive local stimulation are thus palliated, systematic curative therapy can be instituted.

If patients have to scratch (and they often do), they can be taught to press hard on the itching spot with the fingers covered with thick cotton cloth. Of course, it is better when this occurs to apply some of the salves or lotions to be discussed later; but it is not always convenient to do so. As the surface is usually moist the drying of the same by a clean cotton cloth, absorbent toilet paper, or the use of a carbon tetrachlorid lotion, usually gives relief which may last through the night.

Paroxysms of perianal itching often are started by the appearance of a very small amount of rectal secretion finding its way along the radiating lines and creases or tiny fissures that are present. This occurrence sometimes may be made less likely by the administration of a small cleansing rectal enema at bedtime. Locally, a "dry cleaner," like carbon tetrachlorid c. p. diluted one-tenth with albolene or lanolin and two-thirds with dilute alcohol, is very helpful. The preliminary smarting which results also has a good antipruritic effect. This lotion also may be applied on soft absorbent toilet paper after bowel movements.

The carbon tetrachlorid lotion (which I originated in 1923, *Archives of Dermatology and Syphilology*, 8:411-415, September, 1923) should be diluted, for some individuals become dizzy if they inhale much of it. This preparation, being a good solvent, removes secretions and excretions from the follicles, ducts and creases in the skin, and acts as a bactericidal and fungicidal agent. The addition of two per cent camphor will increase its antipruritic and drying effects. It will be helpful to cleanse the regions morning and night with this lotion. Should the skin become too dry, more oil may be added to the solution or one-half per cent phenol in vaselin may be applied.

I have practically abandoned the local use of powders in this condition, as they are difficult to apply. The hair and other factors make it impossible to properly powder the skin. Occasionally, however, the following may be useful:

R phenol	0.6
acid salicylic	2.0
zinc oxid	25.0
amyl q. s. ad.	60.0

M. in fine powder

Sig: Apply freely

A simple ointment, containing ten per cent of calomel, often is helpful. Also one or two per cent of phenol, with one per cent menthol in olive oil or simple ointment, will give relief. It must be remembered that phenol preparations may in time cause local necrosis.

Tars are often recommended. They will dry the area; they will also relieve itching. The fact that they have carcinogenic properties is, in my opinion, a very serious objection to their use here. This is particularly true of crude coal tar. I rarely use them around the anus, but at times have prescribed a weak liquor carbonis detergens ointment with satisfactory results. Even in these cases, however, I have felt that possibly a two per cent preparation of camphor in simple ointment, or a plain grease alone, would have done as much.

The application of adrenalin solution, several times daily on pads of gauze, by contracting the capillaries, may be very helpful. This is particularly true if there is eczema.

Roentgen therapy has a local sedative and a drying effect. It should be used most cautiously, bearing in mind the danger of producing radiodermatitis and also possible untoward effects on the testicles. We usually administer one-quarter of a skin unit filtered with one millimeter of aluminum weekly, and are careful not to exceed one full skin unit within a month. We have seen some advanced cases of radiodermatitis (and in one instance a superimposed carcinoma) resulting from overtreatment at the hands of others. One patient had gone the rounds of several radiologists, who had given him many treatments without knowing that the individual had had the same given by others. His intergluteal region was covered with a network of telangiectases, and keratoses were beginning to appear. Of course, the average radiologist would never give this treatment without being sure of the past history. Roentgen treatment will relieve for weeks at a time, but the condition will flare up again if the causes are not removed.

Ultra-violet exposures may be helpful by toughening and drying the skin. Its superficial bactericidal and fungicidal action also is beneficial.

Surgical removal of the skin involved, nerve resection, nerve injection, and other measures to produce complete local anesthesia will give relief. However, the results are apt to be only temporary, as nerve regeneration occurs.

To do full justice to our patients we should exert every effort to discover and eradicate the underlying causes, and not be satisfied with local therapy alone. The foregoing suggestions apply to the treatment of pruritus of the anus, as well as that of the genitalia.

A Medical Trade Union.—The Medical Practitioners' Union is a trade union, which was formed in 1915 by physicians who thought that an organization on these lines, which have never been adopted by the British Medical Association, was desirable. It is a smaller body and has nearly 6,000 members. It has joined forces with the other labor unions. The General Council of the Trades Union Congress has accepted the proposal of the Medical Practitioners' Union for affiliation. This is the first time that a medical society has been linked up with the Trades Union Congress. In a press interview the secretary of the union stated that the object of this move is mainly to protect members who are engaged by county and municipal authorities. "Where negotiations are needed," he said, "it will give added strength, but it must not be taken that this affiliation means the possibility of a strike against the sick. Every union affiliated with the Trades Union Congress is governed by its own rules and that, of course, applies to us. It is unthinkable that there should be a strike against people who are ill, nor would anybody expect doctors to take such a step. We are endeavoring to help many members of our union, and to do that we have had to apply wholly as a union." It is one of the objects of the trade unions to be able to declare a general strike, and one actually took place a few years ago but was unsuccessful. The government was equal to the emergency and essential services were maintained by volunteers. It is understood that the application from

the Medical Practitioners' Union was accepted without qualification, no specific point being raised on the question of a general strike. The calling out of the physicians in the case of another general strike would be the *reductio ad absurdum* of trade unionism. The majority of the physicians in this country abhor this movement by a section of the profession. It is certainly due to the great increase of state interference in medical practice in recent years, of which the most important manifestation is health insurance of the wage earners. The idea is, as indicated, to confront the state or the local authorities who employ physicians by a powerful organization.

THE POSITION OF THE BRITISH MEDICAL ASSOCIATION

The question has arisen: Can these medical trade unionists retain membership in the British Medical Association, which is opposed to anything that savors of the political? In a press interview the secretary of the Medical Practitioners Union said that they were not concerned with politics but only with medical politics—a vastly different thing. Both organizations were voluntary bodies, and physicians could be members of both, just as they could be members of two golf clubs. He saw no reason why the two bodies should clash. However, Doctor Anderson, medical secretary of the British Medical Association, has expressed a different view in another press interview. He agreed that physicians may still subscribe to membership in both organizations but said: "They must be men of elastic conscience. Personally I could not do it, because I do not believe in the union's methods. In affiliating with the trade unions they are trying to anticipate the political movement in this country. [He evidently refers to a possible victory of the labor party.] The union will alienate the sympathies of a good many of its members by this move. The British Medical Association does not need to be a trade union to fulfill its objects. Nearly 60 per cent of the profession are members of the association and the turn of events does not perturb us in the least."—London News Letter, *Journal of the American Medical Association*.

Advances in Ovarian Therapy.—A gynecologist, whose name is known from coast to coast, recently commented in the *Journal of the American Medical Association* (February 23) about the cost of ovarian therapy. "It is greatly regretted," he wrote, "that the American products have not been available at prices that justify their preference or at least their being on a parity with the imported material."

Physicians who have read this statement will be interested in the announcement from the Squibb Laboratories that the potency of Amniotin, a physiologically tested preparation of the ovarian follicular hormone, has been increased three-fold and the cost per unit has been reduced to about one-tenth of its former price. For hypodermic administration, Amniotin in Oil is now distributed in one cubic centimeter size ampuls, containing 8,000 and 2,000 International Units per cubic centimeter.

Amniotin Capsules and Pessaries (vaginal suppositories) now contain 1,000 and 2,000 International Units, respectively. The price of these packages is now so low as to compare favorably with the cost of insulin.

The kernel of the scientific outlook is a thing so simple, so obvious, so seemingly trivial, that the mention of it may almost excite derision.

The kernel of the scientific outlook is the refusal to regard our own desires, tastes and interests as affording a key to the understanding of the world.

Stated thus baldly, this may seem no more than a trite truism. But to remember it consistently in matters arousing our passionate partisanship is by no means easy, especially where the available evidence is uncertain and inconclusive.—Bertrand Russell.